

Educational Testing Service

Principles, Policies and
Procedural Guidelines
Regarding ETS Products and Services

February 1, 1979



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PREFACE

Educational Testing Service (ETS) is a private, nonprofit, educational organization with primary involvement in the areas of measurement and research. In collaboration with a wide variety of institutions and agencies, ETS provides programs, research and services for the identification and recognition of individual talents and seeks to contribute to the expansion of opportunities available to all individuals.

ETS recognizes its responsibility to the individuals and institutions that it serves directly and to the larger society that ultimately must judge the value and efficacy of its work. This responsibility is implicit in the educational character under which ETS operates and is reflected in the products and services offered by the organization since its inception in 1947. Periodic and intense self-examination has been one means by which ETS has attempted to assure its continuing commitment to the broad constituency which it serves. As a step in that continuing process, ETS has developed these Principles, Policies and Procedural Guidelines Regarding ETS Products and Services (Guidelines), first published on August 1, 1977.

The Guidelines are designed to ensure that ETS products conform to uniformly high standards with respect to seven areas of basic importance: Accountability, Confidentiality of Data, Product Accuracy and Timeliness, Research and Development, Tests and Measurement, Test Use, and Technical Assistance, Advice and Instruction. The first three sections of the Guidelines deal with issues that relate to all ETS activities: Accountability, the responsibilities of ETS to those affected by its activities; Confidentiality of Data, the rights to and limitations on access to data collected by ETS; and Product Accuracy and Timeliness, the control of quality and performance according to scheduled commitments.

The remaining sections concern issues specifically relating to ETS' main endeavors: Research and Development, Tests and Measurement, Test Use, and Technical Assistance, Advice and Instruction.

The Guidelines attempt to codify standards used in various ETS programs and services that should be considered for more general application and more formal articulation. ETS has not developed these Guidelines because of any legal requirements. They were not devised in response to any standards published by professional organizations, although ETS endorses the goals served by those efforts. These Guidelines are the result of an extensive deliberative process, which began at my direction in 1974. More than 150 members of the staff have participated in the initial development of the Guidelines and their subsequent review and revision. The Guidelines are drawn from the particular circumstances and needs at ETS and are designed to reflect its institutional objectives. Because of their origin and purposes, the Guidelines cannot generally or usefully be applied to organizations whose practices, programs or services differ from those of ETS.

The Guidelines include three types of statements, which have varying degrees of generality and significance. The principle that should underline ETS efforts in any given area is set first; policies to govern decision-making, and designed to foster more specific goals, are set forth next; and procedures relative to the conduct of specific ETS activities are last described. However, because the guidelines must apply to a broad diversity of programs and services with differing characteristics, each procedural guideline represents only one method of achieving the objectives stated in the policies.

Even the principles and policy statements might reasonably be expected to change in focus or coverage, as scientific developments or practical experience change the nature and desirability of various goals. Thus, the Guidelines are intended to encourage and not deter change and improvement. They should foster the development, exploration and use of alternative approaches that hold to high standards and serve important ETS policies.

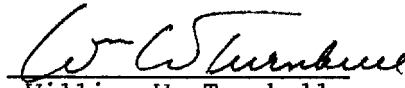
ETS believes that the Guidelines can contribute significantly to the quality and utility of ETS products and services. The Guidelines have been distributed to executive, managerial and professional staff at ETS so that they may be applied in the course of their work at ETS. ETS does not have complete responsibility or authority, of course, to determine how the Guidelines will be implemented in ETS programs for which policy is substantially established by a sponsoring group other than ETS. ETS has, however, taken steps to encourage

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and assist those groups to implement the Guidelines as their activities relate to ETS. New activities ETS enters into will be held to this same expectation.

During the first year after their introduction, the Guidelines existed in provisional form. They were used in evaluating all ETS programs and services, and, where a substantial lack of compliance was found, steps were taken to achieve compliance within a reasonable time, or to revise particular provisions to reflect more accurately the diversity and practical demands of ETS operations. This process of review will continue as part of our organization-wide quality assurance effort and a report will be given to the Board of Trustees at regular intervals. We are committed to the effort to apply a set of positive criteria to our work and, taking the present document as a starting point, we will go forward with the continuing process of improving those criteria and consequently the programs and services ETS provides.

February 1, 1979


William W. Turnbull
President

ACCOUNTABILITY

Principle

ETS acknowledges responsibility for the effective stewardship of its resources to the New York Board of Regents which has issued its corporate charter; to the governing boards that sponsor and set policy for programs or services in which ETS products or services are used; to the individuals and committees that advise ETS with respect to appropriate policy for its programs; to the institutions and agencies that use ETS products and services; to persons who take ETS tests (and parents or guardians of minor persons), submit data for use by ETS or for distribution to others, or participate in research and development projects conducted by ETS; and to the professional associations that are concerned with educational and psychological measurement and research.

Policies

- A. ETS will furnish appropriate information to those to whom it is responsible so they may make informed, independent judgments as to the effectiveness with which ETS exercises its stewardship.
- B. ETS will seek, consider and, as appropriate, act on the views of those who sponsor, use or are affected by ETS programs and services.
- C. ETS will seek to obtain advice on its activities and policies from qualified men and women who are not employed or retained on a regular basis by ETS and who are drawn from appropriate professional disciplines,

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major philosophies and points of view, different geographic regions, and the major ethnic groups within the relevant population.

- D. ETS will support the activities of professional associations with respect to developing and implementing professional standards or codes, making available the results of current work, and fostering peer review of its activities.

Procedural Guidelines

1. Information should be provided to sponsoring organizations with which ETS has contractual relationships in a form that permits evaluation of ETS services in terms of:
 - a) quality;
 - b) timeliness;
 - c) costs; and
 - d) responsiveness to legitimate comments or criticisms.
2. Procedures should be established to facilitate communication with sponsors by:
 - a) meeting at least annually to provide information and to receive comments on matters affecting the operations with which they are concerned;
 - b) defining a mutually agreeable process to be used to transmit comments from sponsors or others and a time period within which the evaluation of comments will be completed and reports of actions to be taken by ETS can be expected.
 - c) making available periodic opportunities for sponsors to express opinions, judgments and counsel concerning their activities or programs directly to ETS officers not normally responsible for such activities or programs.

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3. Procedures should be established for making available technical and other information about ETS products and services to users so that they may evaluate the appropriate use of the product or service and communicate comments or criticisms to ETS.
4. Procedures should be established to communicate with or provide information to persons who use or take ETS tests, who submit data for use by ETS or for distribution to others, or who participate in research and development projects conducted by ETS. This information should be communicated by ETS or the sponsor in such a way that these persons may understand their participation with respect to:
 - a) the identity and scope of the sponsor's responsibility;
 - b) the nature of the product, service or research by which they are affected;
 - c) the way in which the product, service or research will likely be used by educational institutions or others; and
 - d) the channels that have been established for addressing comments or criticisms to ETS or to the sponsor and response thereto.
5. Organizational and program financial information should be recorded, processed and reported in accordance with generally accepted accounting principles and under appropriate safeguards to insure accuracy.
6. An annual report that provides information about organizational activities and finances should be published by ETS on a regular basis and made available to any person on request. Program and project reports, including program financial information, should be made available in a manner consistent with contractual understandings.

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7. Requests for information that is not included in an existing publication should be considered by the appropriate sponsor and by ETS. If its disclosure is consistent with applicable law, with ETS and sponsor policy, and with contractual obligations governing confidential or proprietary information, the information should be provided. If complying with a request for information results in a cost to ETS or a sponsor or affects the normal schedule of fulfilling ETS' responsibilities, ETS may provide the requested information in a reasonable period of time and at an appropriate price for the services rendered. Procedures should be established, as appropriate, to facilitate responses to these requests.
8. Changes in federal statutes, regulations and case law that affect research and development, testing programs, or advisory and instructional services should be monitored to insure that ETS activities and operations are in compliance as relevant federal laws or rules change. Changes in other statutes, regulations and case law should be evaluated as appropriate for the same purpose.
9. All proposed new ETS activities should be reviewed by counsel for compliance with applicable federal law and state law as appropriate. ETS officers and staff should direct the attention of legal counsel to matters that might affect ETS compliance.
10. Advice should be sought, where appropriate, from men and women drawn from diverse backgrounds, interests and experience (e.g., appropriate professional disciplines, major philosophies and points of view, various geographic regions, and major ethnic, handicapped and other relevant subgroups of the population of interest) who are qualified to make a contribution to the direction and substance of ETS programs and who are not employed or retained on a regular basis by ETS.

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11. Individuals who become members of an ETS external advisory, review or evaluation committee should be informed about the results of the committee's work in a reasonable period of time.
12. A reasonable accommodation should be made with respect to the professional responsibilities of the staff in order to permit staff members to attend professional meetings, to contribute to the development of professional standards or codes, to participate in and benefit from the dissemination of information on subjects of professional interest and to stay abreast of current concerns and accomplishments in related fields.
13. ETS should have effective procedures for peer review whenever that will contribute substantially to the quality of ETS work.
14. ETS should have effective and equitable procedures for handling questions of score authenticity arising in connection with the administration of tests.

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CONFIDENTIALITY OF DATA

Principle

ETS recognizes the right of individuals and institutions to privacy with regard to information supplied by and about them that may be stored in data or research files held by ETS and the concomitant responsibility to safeguard information in its files from unauthorized disclosure.

Policies

- A. ETS will ask individuals to provide information about themselves only if it is potentially useful to those individuals, necessary to facilitate processing of data or serves the public interest in improving understanding of human performance. Insofar as possible, individuals should be informed of the purpose for which the information is requested.
- B. The right of individuals to privacy regarding information about them that may be stored in the data or research files held by ETS extends both to processed information, such as scores based on test-item responses, and the raw data on which the processed information is based.
- C. ETS will protect the confidentiality of data supplied by institutions or agencies about themselves, and so identified, to the extent that such confidentiality does not conflict with ETS obligations to individuals.
- D. ETS will not collect or maintain in its data or research files any critical information that in its judgment cannot be protected adequately from improper disclosure.

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- E. ETS will encourage the organizations with which it works to adopt policies and procedures that adequately protect the confidentiality of the data transferred by ETS to those organizations.

Procedural Guidelines

1. Information about an individual, which has been identified as such, may not be released by ETS to organizations other than those for which the information was collected without the consent of that individual. A written exception may be made in the case of research studies during which the Committee on Prior Review of Research has determined that release of the data serves a public need, that there is no satisfactory and reasonable alternative way of obtaining the information, that the recipient researcher will use the data in appropriate ways and that there are adequate assurances of confidentiality.
2. Information about an institution, which has been identified as such, may be released from ETS only in a manner consistent with a prior agreement or with the consent of the institution or with the approval of the cognizant ETS officer and representative of the appropriate sponsor (if any).
3. An individual should be able, on payment of a reasonable fee, to authorize the disclosure of information about himself or herself from program data files held by ETS to any appropriate recipient, provided that such authorization is in writing and that disclosure is not inconsistent with other ETS or sponsor policies and does not violate the privacy of other individuals. Identification of the requester, through signature and data file number, or other appropriate method, should be required before any such information is released.

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4. In an emergency and when it is to the benefit of the individual, an authorization by telegram or telephone for the release of personal data should be acceptable, provided that such authorization includes adequate identifying information and that such release is not inconsistent with other ETS or sponsor policies. By prior agreement with the individual, authorization by a designated agency or institution should also be acceptable. In such instances, the individual should be informed that the disclosure has taken place.
5. If an individual is not competent because of illness or other considerations, information about that individual may be released from data files only with the consent of the individual's parent or legally appointed guardian.
6. Unless the access to confidential data can be safeguarded, ETS should not participate in any time-sharing network, data bank, or other electronic data processing or storage system involving units outside ETS.
7. On submission of appropriate identifying information and payment of a reasonable fee, an individual should be able to obtain information about himself or herself in ETS-held data files for the following purposes: to ascertain the accuracy of personal or biographical data and to request verification, within a reasonable period of time, of test scores or other processed information from tests, questionnaires, or school records, provided such release is consistent with sponsor policies.
8. Procedures should be developed for systematically eliminating from data files information that is judged to be out of date and, hence, of minimal value.

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9. Information from ETS-held program data files provided by individuals for a designated purpose should not be used or released for another purpose (such as a validity study or research project) without the individual's consent except when used or released in a form that cannot be identified with the individual.
10. ETS should refuse to provide personally identifiable information except in accordance with these guidelines unless served with a subpoena or other court order. In that event, ETS should make appropriate efforts to quash or narrow the subpoena or order or to obtain a protective order to minimize the exposure of personally identifiable information.
11. At the time information is collected and to whatever extent practical, programs should inform individuals of the conditions surrounding the release and confidentiality of the information about them.
12. Individuals should be identified in ETS research files only by code numbers. Information linking the code numbers to names should be kept in a secure location only as long as necessary for purposes such as follow-up studies or collating new data, after which the names should be destroyed.
13. Every organization with which ETS works should be informed of the confidential nature of any data transferred by ETS to that organization or collected by the organization on behalf of ETS so that appropriate procedures can be employed by the recipient organization to protect the confidentiality of such data.

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PRODUCT ACCURACY AND TIMELINESS

Principle

The accuracy of ETS' principal products and the timeliness with which they are made available are important parts of the responsibility ETS has undertaken with respect to its sponsors and the diverse public it serves.

Policies

- A. ETS will establish standards of accuracy and timeliness with respect to each principal product.
- B. ETS will use quality controls that are adequate to assure that its standards of accuracy and timeliness are met.
- C. ETS will make realistic delivery commitments and reasonable efforts to meet those commitments.
- D. ETS will sacrifice the timeliness of the delivery of information if the desired accuracy of that information is substantially in question.
- E. ETS will seek to inform those adversely affected if, subsequent to its release, information has been found not to meet ETS standards of accuracy.
- F. ETS will seek to inform those adversely affected if there is a probability that there will be substantial departure from ETS standards of timeliness with respect to a principal product.

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Procedural Guidelines

1. Principal products should be identified and a standard of accuracy using units of measurement appropriate to the type of product should be established for each.
2. When appropriate, quality control should include an adequate and independent recomputation and a visual reexamination of ETS-processed information based on an appropriate sample of cases sufficient to identify errors within the limits of the applicable standards of accuracy.
3. When the computational nature of the information is such that it is impossible or impractical to determine the accuracy of the information by independent recomputation, staff members who are technically competent to do so should assess its "reasonableness" as a part of quality control.
4. There should be a quality inspection of intermediate products when:
 - a) the accuracy of variable information (e.g. parameter data, algorithms), verified by independent recomputation or assessment, influences the nature of an ETS process or computation and is critical to the process that generates an ETS principal product; or
 - b) detection and correction of errors would facilitate meeting the delivery commitment on the principal product; or
 - c) the nature of the principal product is such that it is impossible or impractical to determine the accuracy of the information by independent computation using the source data.

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5. Quality control for principal products that do not contain processed information (such as bulletins of information or test books) should include inspection of a sample prior to release of the product. If the product is released from an outside vendor (e.g., outside publisher) or a sponsor's agent, quality control should include inspection of those components of the principal product that contain critical information on ETS-provided services.
6. Quality control of information given in letter or telephone responses should include a periodic audit of a sample.
7. Failure to meet standards of accuracy and timeliness should be reported to a designated ETS staff member for resolution.
8. A principal product that does not meet established standards of accuracy should not be released until appropriate corrective action is taken unless release would be for the benefit of the score recipient and users and permission to release is given by the cognizant ETS officer.
9. If an error is found in critical information already released by ETS, the correct information should be promptly distributed.
10. Process control methods (e.g., a predefined schedule including a delivery date and contingency procedures for dealing with volume surge) should be established for the production of each principal product to help assure its delivery by the scheduled delivery date.
11. If it is likely that there will be a substantial departure from ETS standards of timeliness with respect to a principal product, those who would be adversely affected should be so notified.

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RESEARCH AND DEVELOPMENT

Principle

A continuing program of research and development conducted in compliance with professional standards with respect to quality and ethical procedures is necessary to maintain the high quality and social utility of ETS contributions to education. This includes basic inquiry to increase understanding of educational processes and human development; evaluative and applied research in response to the needs of the educational community; and research and development to improve ETS products and services. Publication of the results of significant ETS research is of benefit to ETS and the profession because it permits others to use, build upon or improve ETS work.

Policies

- A. ETS will devote appropriate research efforts to improving education through the discovery and conceptual integration of new principles and understanding. This research will be aimed at extending knowledge of the learner and learning processes, of learning environments and educational treatments, of educational institutions and of the interacting factors that influence human development.
- B. ETS will devote appropriate research efforts to the improvement of the technical quality of ETS products and services. Among the important issues addressed by this research will be problems of test development, reliability, equating, validity, and meaningfulness of interpretation.
- C. ETS will devote appropriate research and development efforts to the identification of needs of the educational community and to the creation, improvement and evaluation of instruments, systems and programs of service that meet these needs.

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- D. ETS will conduct its research under appropriate procedures that protect the rights of privacy and confidentiality of human subjects or respondents.
- E. ETS will follow procedures to insure that ETS research is of high quality. Standards of quality in research refer to such matters as the identification of relevant data, the choice of suitable methods of collecting and analyzing data, the logic and objectivity of analysis and interpretation, the exploration of relationships between research problems and findings, on the one hand, and existing knowledge, theories and methodologies on the other, and the thoroughness and care of project planning and management.
- F. ETS will undertake research only if its potential benefits outweigh the inconveniences of or risks to the subjects or respondents who are involved.
- G. ETS will encourage the dissemination of full accounts of ETS research in the usual professional forums and will provide internal means by which the results of ETS research can be published.

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Procedural Guidelines

1. To maintain the quality of operational programs, ETS should engage in the following activities:
 - a) study and research on the test development process, including systematic development and evaluation of new item types and approaches;
 - b) studies to determine the sources of significant differential performance of sex, ethnic, handicapped, and other relevant subgroups on ETS tests;
 - c) periodic evaluation of current approaches to aptitude and achievement measurement to determine fairness, validity and appropriateness for significant subgroups such as minorities and women;
 - d) research related to reliability theory and practice, including methods of determining the reliability of classification decisions;
 - e) study of the equating methods presently in use and development of improved methods as limitations in the applicability of the present methods are observed; and
 - f) research to advance measurement techniques and selection and classification models relevant to fairness and validity.
2. Research projects should be undertaken in such areas as learning and cognition, personality and social influence, teacher behavior and instructional processes, socialization and human development, and the economics and sociology of education as a means of improving educational policies and practices.
3. Efforts should be made to develop instruments and programs of service in areas such as measurement, institutional

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and program assessment and evaluation, instruction, guidance, financial aid, certification and licensing, and technology that would be of educational and social utility.

4. Proposals for research to be conducted by ETS and involving human subjects or respondents should be considered by the Committee on Prior Review of Research, under its procedures for review, to verify that proper arrangements have been made for protection of the welfare and rights of human subjects.
5. Researchers should not conduct research projects without the consent of subjects and respondents. In the case of young children, the consent of parents or a legal guardian, or of appropriate institutional representatives, should be obtained.
6. Each research proposal should be reviewed by one or more persons who are competent in the field within which the proposal falls. They should be satisfied that professional standards of quality and ethical conduct are met.
7. Identifiable data should be released from ETS to researchers other than those who originally conducted the research only when one of two conditions have been met:
 - a) Consent to do so has been given by or on behalf of the subjects or respondents or by those who have given consent on their behalf; or
 - b) the Committee on Prior Review of Research has determined that release of the data serves a public need, that there is no satisfactory and reasonable alternative way of obtaining the information, that the recipient researcher will use the data in appropriate ways and that there are adequate assurances of confidentiality.

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8. After the data-collection phase of a research project has been completed, subjects should not be expected to provide additional data for a follow-up study unless such participation was part of their original agreement to serve as subjects, or their consent for follow-up is obtained or the follow-up study has been approved by the ETS Committee on Prior Review of Research.
9. The results of measures of performance based on experimental situations or tests the interpretation of which is therefore tentative and whose applied use is not yet supportable should not be reported to subjects, or to the institutions providing the subjects, unless there is relatively little danger of misinterpretation or misuse of the information that would be harmful to those individuals or institutions or unless the use is part of a feasibility study or experimental condition. Stipulations regarding nonissuance of such reports should be made to participants in advance of the data collection.
10. The results of each research project undertaken with respect to a particular ETS program or service should be available for dissemination unless a specific need to restrict publication to protect confidentiality or for other program purposes is identified prior to the beginning of the project and made known to the appropriate individuals.
11. The contracts under which research is undertaken for agencies or institutions outside ETS should permit publication of the results of the research unless a specific need to protect the research results is identified prior to the beginning of the research and made known to the appropriate individuals.

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TESTS AND MEASUREMENT

This section which deals with ETS testing activities is divided into seven subsections that are devoted to test development, test administration, reliability, scale definition, equating, score interpretation, and validity.

TECHNICAL QUALITY OF TESTS

Principle

High standards of quality and fairness in constructing, administering, reporting, interpreting and evaluating ETS tests are central to ETS' capability to function effectively as an educational service and research organization.

Policies

- A. ETS will strive to develop tests in which the attributes measured, procedures followed, and criteria used will be unbiased with regard to a heterogeneous group of examinees and appropriate to the use for which the test is designed.
- B. ETS will establish standards for test-administration processes that minimize variations in test performance due to circumstances or conditions not relevant to the attributes being measured.
- C. ETS will establish for its tests a high degree of reliability (accuracy of measurement), consistent with the requirements and the purposes of the test.

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- D. ETS will develop scales for reporting scores in a rational fashion, consistent with the requirements and the purposes of the test.
- E. ETS will provide equating systems, when appropriate, for the perpetuation of scales for reporting scores at the highest level of precision practicable.
- F. ETS will make available to sponsors, institutional or agency users and examinees data for interpreting scores on ETS tests that foster appropriate use of those scores.
- G. Recognizing that test validation is a responsibility of both test users and test developers, ETS will encourage and assist test users in their validation efforts and will itself make available tests that are designed to meet professionally acceptable standards of validity provided the use of such tests is consistent with the primary purposes for which the tests were developed.
- H. ETS will adhere to appropriate professional standards such as those published in Standards of Educational and Psychological Tests and Principles for the Validation and Use of Personnel Selection Procedures.

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Procedural Guidelines

Section 1: Test Development

1. Policy and substantive contributions to the test development process should be obtained from qualified men and women who are not on the full-time staff of ETS and who are drawn from diverse backgrounds and appropriate specialties within professional fields (e.g., various kinds of institutions and programs, relevant philosophies and points of view, and major ethnic, handicapped and other relevant subgroups of the population).
2. Appropriate background information for use in the development of a test should be documented at appropriate stages in the development process and include:
 - a) the purpose for which the test is intended to be used;
 - b) the nature of the population that will take the test;
 - c) the relevant procedural, financial or time constraints that will influence the available test development methods and their likely outcomes;
 - d) for achievement tests, the kinds of curricula for which the test is designed;
 - e) for job-related tests, the elements in training or employment that are related to performance on the job.
3. For each test, specifications should be developed and reviewed by a process that provides information from the following perspectives:

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- a) content and skills--specifications should include the psychological, educational, or other domains to be sampled; the relative weight to be given to each domain; the appropriate level of proficiency to be required within each domain; a balance with respect to curricular differences.
 - b) test and item format--specifications should include the item (question) types that are most clearly related to content or skills to be measured; the appropriate level of language or reading; requirements regarding clear and comprehensive directions and sample items or the need for a sample test; and whether free-response, multiple-choice or other machine scorable formats can be used.
 - c) psychometric--specifications should include the level of difficulty of the test; the distribution of item difficulties (when pretested items are used); guidelines for evaluating the homogeneity among items within a test and the relationship between subtests or tests; equating requirements; number of items and time allotted.
 - d) sensitivity--specifications for tests should require material reflecting the cultural background and contributions of women, minorities, and other subgroups; specifications should also require a balance of positive connotations if negative connotations are made in any references to these groups.
4. Except for tests designed to measure rate of performance, the number of items in a test that has a specified time limit should be chosen so that time is not a decisive factor in performance, at least for the large majority of examinees.
5. Subject matter and measurement specialists familiar with the purpose of the test and with the characteristics of the intended population should review the test items for accuracy, content appropriateness and the adequacy with which the items sample the domain.

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6. The individual items in a test should meet appropriate technical standards such as those contained in the manuals for item writers used in the test development area.
7. Individual test items and the test as a whole should be reviewed to eliminate language, symbols or content which are generally considered potentially offensive, inappropriate for major subgroups of the test-taking population or serving to perpetuate any negative attitude which may be conveyed toward these subgroups. No item in any test should include words, phrases or description that is generally regarded as biased, sexist or racist (e.g., demeaning modifiers and stereotypes).
8. The items in a test should be reviewed by editorial specialists for clarity, accuracy, consistency, and, when appropriate, for conformity with standard editorial style.
9. Tests should contain clear and complete directions. Enough sample problems should be provided in test-program publications so that the examinee can understand the nature of the task and the test-taking procedures. Where there is a need to provide a general orientation to testing, as when testing young children, practice tests--included either in descriptive material or at the time of test administration--should be used.
10. The typography, directions, and arrangement of items in the test booklet should facilitate the task of test-takers. When appropriate, tests should be made available to handicapped individuals such as sight-deficient candidates through tapes, readers or special printing.

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11. Methods should be employed to evaluate the appropriateness of items before their operational use in a program or before the reporting of scores. Appropriate methods include pretesting, preliminary item analysis (using the first operational use of items as an opportunity to identify inadequate items) or careful review of the results of administering similar items to a similar population. In assessing the appropriateness of items before their operational use, efforts should be made to include representative samples of the operational test-taking population.
12. The operational use of each test should be followed by systematic item analyses using appropriate criteria and by test analyses. These analyses should include reliability, intercorrelations of sections or parts, and speededness.
13. Studies relating item performance to subgroups should be carried out for new or substantially revised tests when there are adequate data concerning sufficient samples of large subgroups whose education and experience may be different from the majority of examinees.
14. The specifications for tests in ongoing programs should be reviewed for relevance and appropriateness before each new form is created. ETS staff and advisers should consider whether changes in the field, discipline or curricula require a revision of the specifications.
15. When major changes are made in test specifications, consideration should be given to the implications of such changes for score comparability and whether it is necessary to change the test name or otherwise communicate to those who interpret test scores that comparisons with earlier tests may be inappropriate.

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16. When test forms are used for a number of years in a program, they should be reviewed periodically for their appropriateness. The frequency of such review should be determined by the amount of change occurring in the population of test-takers or the subject matter domain. Test forms that are found to be outdated should be revised or withdrawn from use.

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Procedural Guidelines

Section 2: Test Administration

1. Information should be made available to prospective examinees and (in some programs, to parents or guardians as well) in advance of the test administration with respect to the following, as appropriate:
 - a) the purpose of the test and what it measures;
 - b) the nature of the test items (including samples of typical item types);
 - c) the relevant instructions for taking the test, including instructions for guessing, changing answers, and strategy involving speed and accuracy in taking the test;
 - d) identification requirements and the consequences of not having identification;
 - e) the consequences of misconduct by the test-taker;
 - f) background and experience relevant to test performance;
 - g) the location of test centers, the test dates and special testing arrangements that can be made;
 - h) the procedures for registering for the test and changing the centers;
 - i) the structure of test fees and fee waivers;
 - j) special arrangements available for administering tests to handicapped individuals;

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- k) the reporting of scores;
 - l) procedures for canceling test scores by the candidate and reasons why ETS or the sponsor of the test might cancel scores; and
 - m) the procedures for registering complaints.
2. Program publications should be reviewed for language or descriptions generally regarded as biased and offensive. For example, the exclusive use of masculine pronouns should be avoided as should the implication that all persons in a given category (for instance, examinees, supervisors, counselors, or teachers) are either females or males (unless, of course, the category is logically restricted to members of a single sex). Illustrations, examples and practice items in test-information publications should represent males, females, minority and majority groups, and individuals in ways that indicate respect and awareness of valuable contributions.
3. The facilities at which tests are administered should be places that are convenient for the majority of examinees, nonsegregated and comfortable. At least portions of those facilities should be accessible to and responsive to the needs of handicapped individuals.
4. ETS should enlist test-center supervisors and staff with demonstrated sensitivity to the anticipated sex and ethnic composition of the examinee group, based on prior experience. When appropriate, persons affiliated with institutions attended by significant numbers of those examinees should be included. Minority-group supervisors and/or proctors should be employed, and test sites should be located in minority communities whenever appropriate and feasible.

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5. Test-center supervisors and staff should be familiar with the procedures for administering a standardized test and should be provided with a description of the testing program, a description of the candidate population, and specific instructions for administering the test. Instructions concern such subjects as the duties of test supervisors, associate supervisors, and proctors; the receipt, storage and return of test supplies; the admittance of examinees to the testing rooms; the distribution of test materials; procedures to be followed in administering tests to handicapped individuals; procedures to be followed in instances of suspected cheating; procedures to be followed in other cases of candidate misconduct; and procedures to be followed in case of emergency.
6. Test performance can be affected by the psychological atmosphere of the testing center. Test supervisors should be informed of this and instructed to take measures to avoid an adverse situation. For example, test supervisors should be instructed, when it is appropriate and feasible, to have minority- as well as majority-group persons, women as well as men, read test directions and to recognize questions from examinees following an impartial procedure.
7. ETS should provide the test center supervisor with directions to be read aloud to examinees before the test begins. These directions should include information relating to: procedures for marking answer sheets, timing of test sections, strategies for guessing, time and duration of test breaks and examinees' use of unauthorized aids. Test supervisors should check to see that examinees understand their task and the procedures to be followed.

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8. Reasonable efforts should be made to eliminate opportunities for examinees to attain scores by fraudulent means by stipulating requirements for identification, assigning examinees to seats and requiring appropriate space between seats.
9. Appropriate procedures should be applied after the test administration to identify scores of questionable authenticity, to resolve issues of authenticity and to provide for prompt reporting of questioned scores found to be authentic.
10. A systematic program for observing test administrations should be conducted by trained ETS staff members or other qualified individuals: to review the testing procedures with the test supervisors, to insure appropriate testing conditions, to insure adequate maintenance of test security at the test centers and to relay questions and concerns from the field to the appropriate ETS office.
11. Testing programs should have detailed procedures for investigating and resolving examinees' complaints of irregular test administration or score reporting.
12. Comments and suggestions should be solicited from supervisors by such means as the Supervisor's Comment Sheet and meetings of supervisors to provide ETS staff with information to improve future administrations.
13. Supervisors should be required to record and report to ETS information on irregularities (such as mistiming, defective materials, power failures and cheating) so that ETS can evaluate the possible effect of such occurrences on examinees' test performance.
14. An individual who has taken a test should be provided information that will be helpful in interpreting scores on that test.

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Section 3: Test Reliability

- l. When test scores are reported to institutional or agency users or to individual examinees, information about the reliability of the test should be documented and should include:
 - a) a reliability coefficient and an overall standard error of measurement (several indices may be provided if more than one method of assessing reliability has been used; alternate-form information should always be provided if available);
 - b) standard errors of measurement for score regions if decisions about individuals are made in those score regions and if the overall regions and the overall standard error are judged inappropriate;
 - c) the formula(s) used to estimate reliability and/or appropriate references;
 - d) a justification of the method(s) used to assess reliability;
 - e) a specification of the major sources of measurement error accounted for in the reliability analysis;
 - f) a specification of the time interval between testings if alternate-form or test-retest reliability is used;
 - g) the number of observations, the mean and standard deviation of the analysis sample (ranges or averages are acceptable in cases where the reliability information is derived from several samples);
 - h) speededness data; and
 - i) correlations of subscores within the same test or battery of which the test is a part.

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2. If reporting any of the reliability information required under Guideline 1 is inappropriate, the reasons should be stated in appropriate program documents and, if possible, alternate information about consistency should be provided.
3. Efforts should be made to provide reliability information in an appropriate form to the examinees to whom the scores are reported.
4. The method(s) used for assessing reliability should:
 - a) take into account the most common sources of error generally considered significant for test interpretation (e.g., guessing, instability over time, item and content variation, and rater inconsistency): and
 - b) be appropriate to the nature of the test, in order not to seriously over- or underestimate reliability.

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Procedural Guidelines

Section 4: Scale Definition

1. Raw scores on a test or subtest (including percentages of questions answered correctly) should not be reported by ETS for individual examinees or in summary form for groups of examinees except under either of the following circumstances:
 - a) when it is anticipated that only one edition of the test will be offered for use in the foreseeable future or it is demonstrated by appropriate empirical procedures that raw scores on all the editions to be compared are interchangeable; or when raw scores on that test edition will not be compared directly with raw scores on another test edition; or
 - b) when reported in conjunction with a scaled score and in a context that supports appropriate interpretation, such as when a copy of the test itself is available or when individual or group responses to individual items, depending on whether individual or group performance is being assessed, are available.
2. If a test or test battery yields multiple scores for an individual and scaled scores are to be used directly (i.e., without reference to norms tables) in interpreting performance profiles, the scales should be normatively defined and each should be defined with respect to the same population.
3. When different tests in a program are taken by different examinees whose scores are to be directly compared, the scales for the tests should take into account possible differences among the groups of examinees who take the various tests.

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4. Established scales should not be redefined except under compelling circumstances. If a scale is to be substantially redefined, the numerical values should be changed substantially to minimize the possibility of confusion between test results expressed on the revised scale and results expressed on the original scale. An exception to this guideline may appropriately occur if the test in question is one of a set of tests for which a single range of numerical values (e.g., 20-80) is used and the scales for other tests in the set have not been redefined.
5. Scale properties that affect score interpretation and use should be described in program publications available to the examinees and to institutional or agency users.
6. Technical manuals and interpretive publications for institutional or agency score users and examinees should indicate, in language appropriate to the audience, whether a distributively based scale is intended to be normative or nonnormative. If it is intended to be normative, the group should be described.
7. Whenever a normatively defined scale no longer conveys useful normative information, all published descriptions of the scale should be changed accordingly.
8. Program publications should caution score recipients (users and examinees) that scores received on different tests that are reported on scales that are similar in appearance may not be equivalent.

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Guidelines 9 through 14 apply only to scales established after guidelines 1-8 were published on August 1, 1977.

9. If a scale is to be distributive, the choice between a normative and nonnormative distributive scale should take into account:
 - a) the extent to which normative interpretation with reference to a particular population will be appropriate and useful for all examinees who take the test and for all purposes for which the scores are intended to be used;
 - b) the probable time period during which the normative information conveyed by the scores will continue to be descriptively appropriate; and
 - c) the feasibility of identifying and testing a suitable group of examinees on which to base a normative scale.
10. The choice between a distributive and nondistributive scale should take into account the use for which the test was intended and to which the test is likely to be put.
11. If a scale is to be defined with reference to standards of performance, the basis for establishing the standards should be determined empirically or rationally rather than arbitrarily.

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12. The conventional grade- or age-equivalent score (the grade or age for which a particular score is the average) should not be used to establish the score scale for a test or system of tests. This type of score, as it typically has been derived, should be avoided altogether as a basis for reporting test performance. However, the grade (or age) for which a particular scaled score on a test is the average, referred to here as a "grade (age) level indicator" to distinguish it from the conventional grade-equivalent (age-equivalent) score, may be reported to help in score interpretation, if the practices customarily followed in deriving and presenting grade-equivalent (age-equivalent) scores are modified in accordance with ETS criteria that obviate the technical interpretive problems that grade-equivalent (age-equivalent) scores create.
13. The choice of a scale should take into account the likelihood of confusion with other widely used scales.
14. In establishing the number of distinct scale values to be reported, consideration should be given to the relative importance of the need to avoid erroneous distinctions among individuals (by reporting different scores for individuals whose true scores are the same) and the need to maintain distinctions that, on the average, will be correct (by reporting different scores for groups of individuals whose average true scores are different).

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Procedural Guidelines

Section 5: Equating

1. Adequate equating should precede comparisons of the test performance of two or more individuals or groups on nonidentical items or sets of items such as test offerings in which successive, or alternate, forms are used interchangeably.
2. Statistical methods selected for equating should be used only under circumstances that are consistent with the assumptions under which the methods have been developed.
3. In regular and continuing testing programs that are available to users, integrated, long-range systems of equating the scores to all successive editions of the test should be used and described in technical publications.
4. For those tests that are offered for institutional use (as distinguished from externally administered tests offered in testing programs) of which only a limited number of forms are available, equating of new forms should be based on specially designed studies in which examinees or groups of examinees are selected by an appropriate sampling procedure to take the alternate forms or alternate sequences of forms.
5. When test forms are equated with the use of common (anchor) items, the psychological task of taking those items (represented, for example, by the directions, the context of the items and the speededness of the part of the test in which the items appear) should be the same for all examinees.

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6. When the common items used for equating are not representative of the tests being equated, the groups of examinees used for equating should be as nearly as possible equivalent.
7. In the continuing testing programs, statistical checks (e.g., check equating, special scale-stability studies) should be employed to permit regular assessment of the precision of the equating.

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Procedural Guidelines

Section 6: Score Interpretation

1. Effective test use and meaningful score interpretation should be supported and augmented by:
 - a) the development of appropriate test norms based on administering tests to samples from a defined population when there is a reasonable expectation that a large proportion of the schools or other units selected for the norms sample will agree to participate; or,
 - b) a rationally developed system of interpretation shared with score recipients when score interpretation is not developed from normative data.
2. Tests offered for sale and described by ETS as standardized tests (as distinguished from tests offered in testing programs) should have adequate norms or other information for use in interpreting test results.
3. When test norms are developed by administering tests to samples from a defined population, the resulting norms should be representative of any relevant subgroup, including those defined by sex or ethnicity, in proportion to their frequency in the defined population. Such subgroups may be deliberately over-sampled for more precise estimation of the statistical characteristics of the population by procedures that take over-sampling into account. Data on the proportions in the sample and in the population, when available, should be reported in an appropriate technical publication.

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4. The report of a special norms study should provide information on:

- a) the sampling design;
- b) the participation rate of institutions or individual respondents in the sample;
- c) characteristics of the participating institutions and individuals;
- d) weighting systems used in preparing norms; and
- e) estimates of sampling variability along with an acknowledgment, when necessary, that such estimates do not take into account biases arising from nonparticipation.

5. When descriptive statistics based on program testing (as distinguished from norms based on special norms studies) are published, the following guidelines should be used:

- a) both table titles and descriptive material should make it clear that the statistics are based on examinees or participating institutions or other using agencies;
- b) the descriptive material should define the nature of the group by identifying the appropriateness of the sample and the factors that relate the background of the group to test performance, and by acknowledging explicitly that the sample is self-selected;
- c) when possible, reports should be prepared to show comparisons of data based on program examinees or institutional characteristics with relevant data on variables from other sources;

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- d) when information about interpretive data is prepared for different user groups, the presentation, whenever practicable, should be adapted to the needs and background of each group.
- 6. When norms are developed from program testing, the age, sex and ethnic composition of the program norms group should be described whenever such information about subgroup membership is available.
- 7. In testing programs, descriptive statistics should be compiled periodically from a sample or entire population in order to monitor the participation and performance of males and females drawn from diverse backgrounds, interests and experience (e.g., major ethnic group, handicapped status and other relevant subgroups of the population of interest).
- 8. If norms intended for use in the interpretation of individual scores are presented separately for males and females or for members of specific ethnic groups, the rationale should be carefully described. Separate norms may be justified for scores used primarily for guidance when access to the experiences needed to earn a high score is clearly related to subgroup membership and a more direct index of access is not available. The existence of score differences between subgroups does not in itself justify presentation of separate norms.
- 9. Descriptive statistics prepared separately for subgroups of the relevant test-taking population but not intended for use in interpreting individual scores should not be presented in a way that encourages their use for such a purpose.

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10. Institutional or agency users and examinees should be informed of the standard error of measurement of a score, and test interpretation materials should point out the limitations of test scores and encourage score users to take into account the possible scores a test taker might achieve on retesting.
11. Statistical data used in score interpretation should be revised annually except when less frequent revision is judged to be appropriate as, for example, when norms are based on special studies. A statement of the period in which the data were collected should be included in any publication that presents the data.
13. Institutional or agency score recipients should be provided with interpretive materials designed to be helpful for using scores in conjunction with other information, setting cutting scores where appropriate, interpreting the scores for special subgroups (e.g., ethnic minorities, males, females, and handicapped students), conducting local normative studies, and developing local interpretative materials.

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Procedural Guidelines

Section 7: Test Validity

1. ETS should provide evidence of the validity of its tests in relation to the principal purposes or intended uses of the tests. One or more of the following may be applicable:
 - a) when test scores are to be interpreted in terms of degree of mastery of the knowledge, skills, or abilities of a domain represented by the test, content validation evidence should be provided.
 - b) when test scores are to be interpreted in terms of the prediction of future behavior, criterion-related validation evidence should be provided.
 - c) when test scores are to be interpreted as a measure of a theoretical construct, construct validation evidence should be provided.
2. Evidence of content validity should be based (a) on a careful determination and analysis of the domain(s) of interest and of the relative importance of topics within the domain, and (b) on a demonstration that the test is an appropriate sample of the knowledge or behavior in the domain(s). A report on evidence of content validity should present descriptions of the procedures employed in the study, including the number and qualifications of experts involved in the analysis of the domain or evaluation of the relevance and appropriateness of the test.
3. Construct validation should be based on: rational and empirical analyses of processes underlying performance on the test in question including, where appropriate, noncognitive as well as cognitive functions. Empirical evidence relevant to the analyses should include results of investigations of the degree to which test scores are related or unrelated to other variables in ways implied by intended interpretations.

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4. Criterion-related validation should be used only when technically sound and relevant criteria are available or can be developed and when other conditions affecting feasibility warrant the study.
 - a) Criterion-related validation should involve as many performance variables as necessary to permit evaluation of the effectiveness of test scores for predicting the types of behavior they are intended to measure.
 - b) Criterion-related validation should not combine variables to form a single criterion measure unless such a procedure is justified by logical considerations or empirical evidence or the practical requirements of the intended use of the results.
 - c) Criterion data should be collected in a way that permits an assessment of the reliability of each criterion variable, but with the understanding that there may be several sources of irrelevant variation, (sampling of criterion content, source of criterion ratings or data, and so forth).
5. Interpretations of correlations between test scores and criterion variables should take into account such factors as sample size, criterion reliability, possible restriction in the range of scores obtained in the validity study sample, and other contextual factors.
6. The method(s) by which any validation is accomplished should be fully documented; such documentation should include appropriate details such as the nature and reliability of the criteria, a description of the subjects used, the materials surveyed and the qualifications of the experts who made judgments regarding the appropriateness and importance of test content.

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7. Where adequate methods are employed to insure equivalence of scores on alternate forms, it is not necessary that each new form be validated. New validation studies should be made if revised tests have substantial changes, such as different item types, or if they sample a revised performance domain.
8. When appropriate and feasible, the validity of a test should be investigated separately for subsamples of the test-taking population.
9. When a name of a test is established, it should not imply more than is justified by evidence of validity.
10. Information should be made available to institutional and agency users that would be of assistance to them in planning and conducting local validity studies.

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TEST USE

Principle

Proper and fair use of ETS tests is essential to the social utility and professional acceptance of ETS work.

Policies

- A. ETS will set forth clearly to sponsors, institutional or agency users, and examinees the principles of proper use of tests and interpretation of test results.
- B. ETS will establish procedures by which fair and appropriate test use can be promoted and misuse can be discouraged or eliminated.

Procedural Guidelines

- 1. Program publications should:
 - a) describe appropriate uses and caution against potential misuses of program tests;
 - b) explain clearly that test scores reflect past opportunity to learn and discourage test interpretations that go beyond reasonable inferences from test performance;
 - c) emphasize that an individual's test score should be interpreted in the context of other information about him or her;
 - d) provide appropriate information about test content, difficulty, and purpose to help the institutional or agency user select instruments that meet the measurement requirements of the situation and avoid selecting, requiring or using inappropriate tests;

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- e) invite institutional or agency users to consult with the program sponsor and/or ETS about their current or intended uses of ETS-developed tests and identify the offices to be contacted for this purpose;
 - f) summarize results of research relevant to the use of the test or cite references in which such results are reported;
 - g) describe adequately and clearly scale properties that affect score interpretation and use;
 - h) advise institutional or agency users that decisions about the application of single or multiple prediction equations, based on distinguishing characteristics such as sex, ethnic group or curricular emphasis or training, should be preceded by careful examination of social, educational and psychometric factors;
 - i) advise institutional or agency users that if examinee grouping based on test scores is practiced, provision should be made for frequent review of group assignments to determine actual performance;
 - j) stress that pass-fail or cut-off scores established for such purposes as admission, credit, or certification, should be used as a basis for decision making only if the institutional or agency user has a carefully developed rationale, justification, or explanation of the cutting score that is adopted; and
 - k) encourage institutional or agency users to reexamine cut-off score policies periodically to minimize or eliminate possible disproportionate exclusion of members of any group such as men and women drawn from diverse backgrounds (e.g., major ethnic, handicapped and other subgroups of the population of interest) in the face of other evidence that would predict their success or indicate their competence.
2. Special (nonprogram) publications should be developed and disseminated by ETS to promote fair use of tests and discourage misuse of tests.

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3. Complaints or information about questionable interpretation or use of reported scores should be investigated by means of procedures designed for detecting misuse. Such procedures should be documented, and records should be kept of such complaints and their disposition.
4. In cases where a clear misuse is brought to its attention, ETS should inform the sponsor and the institutional or agency user of ETS' opinion as to the misuse and seek voluntary correction of the misuse. If reasonable efforts to seek voluntary correction are not successful, ETS, in conjunction with the sponsor, should take steps to determine whether to continue supplying tests or reporting scores to the institutional or agency user.

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TECHNICAL ASSISTANCE, ADVICE, AND INSTRUCTION

Principle

ETS is dedicated not only to providing measurement programs and conducting research but also to promoting increased understanding of measurement and test use.

Policies

- A. ETS will develop and offer instructional programs in the areas of measurement, evaluation, and related research through such forms as publications, seminars, in-service training, intensive residence courses, workshops, internships and conferences. ETS may undertake these activities independently or in cooperation with other agencies, professional groups or educational institutions.
- B. ETS will provide advice and information on measurement-related issues and about ETS programs, research and services. In this activity, ETS will work, where feasible, in collaboration with other professional organizations that show a concern about measurement.
- C. ETS will respond promptly to requests for advice, instruction and technical assistance related both to programs and services offered by ETS and to the related areas of educational measurement, evaluation and research.
- D. ETS will conform to high standards of accuracy and professionalism in its advisory, instructional and technical assistance activities.

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- E. ETS will provide advice, instruction and technical assistance to clients from the private and public sectors and from foreign and domestic government agencies to the extent that such services are consistent with ETS areas of expertise, meet accepted professional and ethical standards, and reflect an understanding of and respect for cultural differences.
- F. ETS will endeavor to promote increased understanding of the purposes and procedures of testing among professional groups and in the public sector; ETS will make this effort both independently and in cooperation with other organizations that share this responsibility.

Procedural Guidelines

- 1. ETS's offices should offer advice, instruction and technical assistance; the staffing for such services should be determined by the nature of the services and the expertise required.
- 2. The special requirements of audiences with varying needs, interests, cultural backgrounds and levels of knowledge should be considered when ETS provides technical assistance, advice, or instruction.
- 3. New developments in research or testing should be considered when technical assistance, advice and instruction are offered.
- 4. Technical assistance, advice and instruction offered to institutions or agencies should include guidance on how to use other information about examinees (such as previous academic performance, English as a second language, and family or cultural background factors) in conjunction with test scores.

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5. Comprehensive collections of reference materials relating to tests, measurement, evaluation and related research should be developed, maintained and made available to all ETS staff members and, when appropriate, to professional groups and individuals outside the organization.

GLOSSARY OF TERMS

Accuracy: The extent to which a principal product conforms to its specifications or correctly reflects the source data within the specified limits of reliability.

Client: (See Sponsor)

Consent: Permission granted by an individual or that individual's parent or guardian to the use or release of data held by ETS; such permission granted upon receipt of a reasonable explanation of the purpose of the use or release and a reasonable explanation of the manner in which the results will be reported.

Critical Information: Information that will be used to draw important inferences (a) about the sponsor, ETS-appointed external committees, institutional or agency user, examinee, subject or respondent, or (b) by the sponsor, institutional or agency user, examinee, subject or respondent and which, if incorrect, could be harmful.

Distributive Scale: A scale that is defined to yield either a specified score distribution or a specified mean and standard deviation for a particular group of examinees.

ETS Board of Trustees: The ETS Board of Trustees is the governing body of ETS. There are 16 trustees. Thirteen are elected for four-year terms. New members of the Board are elected by current trustees. Some are chosen from nominees proposed by the American Council on Education and the College Entrance Examination Board, two of the founding organizations of ETS. The presidents of the American Council on Education, the College Entrance Examination Board and ETS also serve as trustees.

ETS-held Program Data Files: Information about individuals and institutions held by ETS and derived from ETS-provided services of collection, processing, storage, retrieval and dissemination.

ETS-held Research Files: Information held by ETS and generated through ETS-conducted research intended to result in the development of new or improved techniques and materials for application in such areas as classroom instruction, evaluation of progress toward educational goals, counseling of students, and decision-making of school administrators.

Examinee: An individual who takes a test, developed and or administered by ETS.

Institutional or Agency User: An organizational recipient of ETS-processed or produced information.

Intermediate Product: Materials that are not released externally, but that are necessary to the production of the principal product.

Glossary (continued)

Nondistributive Scale: A scale that is defined without reference to the observed test performance of a particular group.

Nonnormative Scale: A scale that is based on the performance of any conveniently available subgroups of examinees for whom the test is appropriate. A score on a nonnormative scale is not intended to convey information about an examinee's standing in relation to a defined population.

Normative Scale: A scale that is based on the test performance of a sample of examinees, selected as prescribed by a specified design, from a clearly defined population. A score on a normative scale is intended to convey useful information about the performance of a particular examinee in relation to the performance of that population.

Principal Product: ETS-produced or processed materials (e.g., annual reports, performance data, score reports and admissions tickets) that are released or transmitted to a sponsor, ETS-appointed external committee, institutional or agency user, examinee, subject or respondent, pursuant to a contract or published commitment. Standards with respect to accuracy and timeliness are applicable to principal products.

Principles for the Validation and Use of Personnel Selection Procedures, Division of Industrial-Organizational Psychology, American Psychological Association. Dayton, Ohio: The Industrial-Organizational Psychologist, 1975.

Respondent: An individual who provides data to a research project in a manner and for a purpose different from either examinees or subjects.

Sponsor: Educational, professional or occupational associations, federal, state or local agencies, public or private foundations which contract with ETS for its services. This category includes their governing boards, membership, and appointed committees or staff.

Standards for Educational and Psychological Tests, American Psychological Association (APA), American Educational Research Association, and National Council on Measurement in Education. Washington, D.C.: APA, 1974.

Subgroup: A part of the larger population which is definable according to various criteria as appropriate, e.g., by (a) sex, (b) race or ethnic origin, (c) training or formal preparation, (d) geographic location, (e) income level, (f) handicap, (g) age.

Glossary (continued)

Subject: an individual who participates in an ETS laboratory or experimental research project.

Testing Program: A set of arrangements under which examinees are scheduled to take a test under standardized conditions, the tests are supplied with instructions for giving and taking them, and arrangements are made for scoring the tests, reporting the scores, and providing interpretative information as part of a comprehensive ongoing service. A program is characterized by its continuing character and by the inclusiveness of the services provided.

Timeliness: The degree to which a principal product is released or delivered to its recipient within a predefined schedule.

